CLAIMS:

1. (Amended) A biochamber comprising a center lumen and outer walls formed of Sertoli cells.

2. (Amended) The biochamber according to claim 1, wherein said engineered Sertoli tissue construct form said center lumen surrounding a population of cells which are different than said engineered Sertoli tissue construct .

3. (Amended) The biochamber according to claim 2, wherein said center lumen contains pancreatic islet cells.

4. (Amended) The biochamber according to claim 2, wherein said center lumen contains neuronal cells.

5. (Amended) The biochamber according to claim 4, wherein said neuronal cells are NT2 neurons.

6. (Amended) The biochamber according to claim 1, wherein said outer walls are formed from a plurality of Sertoli cells which form a tissue construct.

7. (Amended) The biochamber according to claim 6, wherein said outer walls are a immunoprotective system.

Please cancel claims 8-12.

13. (Amended) A method of making biochambers comprising the step of

co-culturing Sertoli cells and therapeutic cells such that an outer wall of Sertoli cells forms around the therapeutic cells.

14. (Amended) The method according to claim 13, further including the step of segregating the Sertoli cells away from the therapeutic cells.

16. (Amended) The method according to claim 15, wherein said inducing step further includes adding a compound for inducing epithelization and polarization.

Please cancel claim 18.

19. (Amended) A biochamber comprising an outer wall of Seroli cells and an inner lumen of therapeutic cells.

24. (Amended) The transplantation vessel according to claim 23, wherein said therapeutic cells are selected from the group consisting of neuronal cells, NT2 cells, pancreatic iselt cells, dopaminergic cells, and bovine chromaffin cells.